



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/551,871	04/18/2000	Kazunari Yoshida	0020-4699P	2420

7590 03/02/2004  
Birch Stewart Kolasch & Birch LLP  
P.O. Box 747  
Falls Church, VA 22040-0747

EXAMINER

HUNTER, ALVIN A

ART UNIT	PAPER NUMBER
----------	--------------

3711

31

DATE MAILED: 03/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/551,871

Applicant(s)

YOSHIDA ET AL.

Examiner

Alvin A. Hunter

Art Unit

3711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Kim et al. (USPN 5184828).

Kim et al. discloses a three-piece golf ball having an inner core, outer core, and cover wherein the golf ball exhibits superior rebounding and carrying characteristics (See Column 1, lines 42 through 60). Kim et al. discloses the inner core having a central hardness of 30 to 48 Shore D, or 50 to 73 JIS-C, and a hardness at the outer site of the inner core of 46 to 62 Shore D, or 71 to 92 JIS-C (See Abstract and Figure 1). The inner core also has a diameter of 23 to 35 mm (See Figure 1). The outer core has a hardness of 30 to 56, or 50 to 84 JIS-C, and a diameter of 36 to 41 mm (See Abstract). From the disclosed ranges for the inner and outer core above, the outer core can have a thickness from at least 1 mm to 18 mm. As shown above, the outer core is less than the surface hardness of the inner core by at least 21, and the surface hardness of the inner core is higher than the central hardness of the inner core by at least 21. It is also noted that both the inner and outer cores are made of polybutadiene, a co-crosslinking agent, an organic peroxide and fillers (See Columns 3 and 4).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al. (USPN 5184828) in view of Hanada et al. (USPN 4483537).

Kim et al. discloses that the co-crosslinking agent may a metal salt such as zinc diacrylate, zinc dimethacrylate, and the like, but does not disclose the co-crosslinking being magnesium methacrylate. Tanaka et al discloses a core having a metal salt co-crosslinking agent from the group of zinc acrylate, magnesium acrylate zinc methacrylate, and magnesium methacrylate (See Paragraph bridging Columns 2 and 3). It is submitted that used of Magnesium methacrylate is a substitutional material for that of a zinc acrylate type. One having ordinary skill in the art would have found the invention of Kim et al. to perform substantially the same substituting magnesium methacrylate for any other metal salt in order to increase the rebounding characteristics of the golf ball.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al. (USPN 5184828).

Kim et al. does not disclose the outer core having a thickness of 0.2 to 0.9mm. In spite of having not disclosing the above thickness. Kim et al. notes that the diameter ranges affect the ball's characteristics. If the inner core is greater than 35mm, the ball

becomes harder, in other words, more resilient, and if the outer core diameter is less than 36mm, the carrying distance is reduced. Therefore, one having ordinary skill in the art would have found it a matter of obvious routine optimization to have the outer core of a thickness of 0.2 to 0.9mm in order to achieve any desired resilience and carrying distance for the golf ball.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al. (USPN 5184828) in view of Horiuchi et al. (USPN 5702312).

Kim et al. discloses that the cover is made of an ionomer resin such as Surlyn™ and has a thickness of 0.9 to 2.6mm, but does not disclose the hardness of the cover (See Column 6, lines 31 through 38). Horiuchi et al. discloses a three-piece solid golf ball having a cover made of an ionomer, such as Surlyn, having a Shore D hardness of 52 to 64 wherein the cover hardness attributes good flight distance, controllability, and feel to the golf ball (See Columns 2 and 3). One having ordinary skill in the art would have found it obvious to have a cover with a Shore D hardness, particularly of 58 to 75, in order to optimized the flight distance, controllability, and feel of the golf ball.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-5 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alvin A. Hunter whose telephone number is 703-306-

Art Unit: 3711

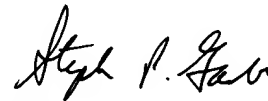
5693. The examiner can normally be reached on Monday through Friday from 7:30AM to 4:00PM Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Garbe, can be reached on 703-308-1207. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AAH

Alvin A. Hunter, Jr.



**Stephen P. Garbe**  
**Primary Examiner**